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EXAMINER
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NGHIEM, MICHAEL P

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/582,922  
Filing Date: June 13, 2006  
Appellant(s): ATHANASIOU, ATHANASIOS

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James Howard  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed September 21, 2009 appealing from the Office action mailed May 6, 2009.

Examiner notes that the appeal brief should be filed under Rule 41.37.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

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GB 2 152 673	Severn	8-1985
US 4,482,785	Finnegan et al.	11-1984
US 6,438,973	Yoshida et al.	8-2002

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishio et al. (US 6,553,774).

Regarding claim 10, Ishio et al. discloses a household appliance (refrigerator, Abstract, line 1) having at least one sensor (detector, Abstract, line 4) for detecting at least one operating parameter of the household appliance (Abstract, lines 4-6), a memory (Abstract, line 7) connected permanently to the sensor for periodically recording the value of the operating parameter detected by the sensor (memory stores conditions detected by detector, Abstract, lines 4-8) and an interface (interface between memory

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and diagnostic device, Abstract, line 8) for reading out the content of the memory (Abstract, lines 8-10).

Regarding claim 14, Ishio et al. discloses the household appliance includes a housing (housing of refrigerator, Abstract, line 1) and the memory is built in the housing (memory is part of self-diagnosis apparatus of refrigerator, housing of refrigerator, Abstract, lines 1-8).

Regarding claim 15, Ishio et al. discloses the household appliance includes at least one of a refrigerating device (Abstract, line 1).

Regarding claim 16, Ishio et al. discloses a method for determining a cause of failure on a household appliance (Abstract; column 2, lines 1-12), the method comprising the following acts:

periodically detecting at least one operating parameter of the household appliance and recording the detected value in a memory at least during normal operation of the household appliance (Abstract, lines 4-8);

reading out the memory in the case of a fault (Abstract, lines 8-10);

tracing the cause of the fault from the parameter values which have been read out (performing diagnosis, column 2, lines 1-12; it is inherent that a cause of fault is found since an improvement action is selected by the diagnostic means, column 2, lines 6-7).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishio et al. in view of Severn (GB 2 152 673).

Ishio et al. discloses all the claimed limitations as discussed above except:

- regarding claims 11 and 12, the first interface includes an interface to a data network, especially to a telephone network.
- regarding claim 13, the first interface includes a cordless interface.

Nevertheless, Severn discloses the first interface includes an interface to a data network, especially to a telephone network (page 4, lines 102-105), the first interface includes a cordless interface (mobile version of serial communication interface, page 4, lines 119-121). This would increase the range of communication for alarm reporting (page 4, lines 105-107).

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Ishio et al. with telephone interface or cordless interface as disclosed by Severn for the purpose of increasing the communication range for reporting alarms.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishio et al..

Ishio et al. discloses all the claimed limitations as discussed above except the recorded parameter values are depleted or overwritten after a first predetermined storage time and deleted after a second predetermined storage time.

Nevertheless, Ishio et al. discloses that the conditions parameters are stored in memory for a predetermined time (Abstract, lines 6-7). Thus, it is obvious that the conditions parameters would either be depleted, overwritten, or deleted after a predetermined time.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to deplete, overwrite, or delete parameter values after predetermined storage times for the purpose of reusing existing memory spaces. Thus, memory can be efficiently used and saved.

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Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishio et al. in view of Finnegan et al. (US 4,482,785).

Ishio et al. discloses all the claimed limitations as discussed above except transferring the recorded parameter values from the household appliance to a separate device and performing the act of tracing the cause of the fault at the separate device.

Nevertheless, Finnegan et al. discloses transferring the recorded parameter values from the household appliance to a separate device (remote control and monitor unit 12, Fig. 1d ) and performing the act of tracing the cause of the fault at the separate device (column 7, lines 52-56).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Ishio et al. with a separate device for the purpose of performing the diagnosis. Having a remote, separate, and central processing system would increase the capability to process data since data can be collected from a wider range of areas.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishio et al. in view of Yoshida et al. (US 6,438,973).



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Ishio et al. discloses all the claimed limitations as discussed above except a remote service device in selective operative communication with the interface for use by a service designate for diagnosing problems with the appliance.

Nevertheless, Yoshida et al. discloses a remote service device (device the stored data is downloaded to, Abstract, lines 5-7) in selective operative communication with the interface for use by a service designate (downloaded by service technician, Abstract, lines 5-7) for the purpose of diagnosing problems with the appliance (column 2, lines 46-49).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Ishio et al. with remote service device as disclosed by Yoshida et al. for the purpose of diagnosing problems with the appliance.

#### **(10) Response to Argument**

Regarding claims 10 and 14-18, Appellants argue that “the Ishio et al. reference very clearly fails to disclose at least a memory connected permanently to the sensor for periodically recording the value of the operating parameter detected by the sensor and an interface for reading out the content of the memory” (page 7, paragraph 6 – page 9, paragraph 4; page 10, paragraph 9).

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Examiner's position is that the Ishio et al. reference very clearly discloses at least a memory (memory, Abstract, line 7) connected permanently to the sensor (detector, Abstract, line 4; detected data are stored in memory, Abstract, lines 4-8; also see sensors 1-3 connected to memory 7 via control part 24, Fig. 1<sup>1</sup>) for periodically recording the value of the operating parameter detected by the sensor (memory stores conditions detected by the detector, Abstract, lines 4-8) and an interface (interface between memory and diagnostic, Abstract, line 8; see also interface for reading out memory part 7 comprising control part 24, Fig. 1) for reading out the content of the memory (Abstract, lines 8-10; see also control part 24 reading out from memory part 7, Fig. 1).

It is noted that neither claims 10 nor 16 recite "an interface for reading out the content of memory from the household appliance".

Regarding claims 11-13, Appellants argue that the Severn reference does not remedy the deficiencies of the Ishio et al. reference. The Severn reference teaches a telephone interface or cordless interface. One of ordinary skill in the art would not have had any apparent reason to combine the Severn reference and the Ishio et al. reference. Further, there is no teaching or motivation to combine the Ishio et al. reference with the Severn reference. As explained above, the Ishio et al. reference is directed to a self-diagnosing apparatus for a refrigerator, operable to a diagnosis level and beyond

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<sup>1</sup> The Figure of the instant application shows sensors 5,6 connected to memory 9 via control 4.

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without input from service personnel. In the Ishio et al. reference, a diagnosis arrangement selects a predetermined improvement action which is set in advance for diagnosed abnormal conditions. Since the Ishio et al. reference self-diagnoses and then selects a predetermined improvement action, the Ishio et al. reference has no need for the interface of the Severn reference to read out the content of the memory. Thus, one of ordinary skill in the art would not have had any apparent reason to combine the Severn reference and the Ishio et al. reference. Further, there is no teaching or motivation to combine the Ishio et al. reference with the Severn reference (page 10, paragraphs 2-4).

Examiner's position is that the Ishio et al. reference teaches an "outputting means" for providing "a visual and/or display, which enables to easily inform a user of a diagnostic result" (column 2, lines 21-23). Severn discloses the first interface includes an interface to a data network, especially to a telephone network (page 4, lines 102-105), the first interface includes a cordless interface (mobile version of serial communication interface, page 4, lines 119-121) for the purpose of alarm reporting (page 4, lines 105-107).

Accordingly, this would increase the range of communication for alarm reporting of Ishio et al.. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Ishio et al. with telephone interface or cordless interface as disclosed by Severn for the purpose of increasing the communication range for reporting alarms.

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With respect to claim 19, Appellants argue that one of ordinary skill in the art would not have had any apparent reason to combine the Finnegan et al. reference and the Ishio et al. reference. Further, there is no teaching or motivation to combine the Ishio et al. reference with the Finnegan et al. reference. As explained above, the Ishio et al. reference is directed to a self-diagnosing apparatus for a refrigerator, operable to a diagnosis level and beyond without input from service personnel. In the Ishio et al. reference, a diagnosis arrangement selects a predetermined improvement action which is set in advance for diagnosed abnormal conditions. Since the Ishio et al. reference self-diagnoses and then selects a predetermined improvement action, the Ishio et al. reference has no need for transferring the recorded parameter values from the household appliance, as allegedly taught by the Finnegan et al. reference (page 11, paragraphs 5-6).

Examiner's position is that Finnegan discloses that it is well-known to remotely test or monitor refrigeration systems (Abstract, lines 19-21; column 7, lines 48-56). Finnegan et al. discloses transferring the recorded parameter values from the household appliance to a separate device (remote control and monitor unit 12 reading sensor data from freezer compartment groups, column 7, lines 48-56; Fig. 1d ) and performing the act of tracing the cause of the fault at the separate device (column 7, lines 52-56). Having a remote, separate, and central processing system would increase the capability to process more data over Ishio et al. since data can be collected from a wider range of areas/systems.

With respect to claims 20 and 21, Appellants argue that the Ishio et al. reference is directed to a self-diagnosing apparatus for a refrigerator, operable to a diagnosis level and beyond without input from service personnel. In the Ishio et al. reference, a diagnosis arrangement selects a predetermined improvement action which is set in advance for diagnosed abnormal conditions. Since the Ishio et al. reference self-diagnoses and then selects a predetermined improvement action, the Ishio et al. reference has no need for an interface to read out the content of the memory, as allegedly taught by the Yoshida et al. reference. Thus, one of ordinary skill in the art would not have had any apparent reason to combine the Yoshida et al. reference and the Ishio et al. reference. Further, there is no teaching or motivation to combine the Ishio et al. reference with the Yoshida et al. reference (page 12, paragraphs 7-8).

Examiner's position is that Yoshida discloses that it is well-known to read-out the diagnostic data from memory and send the data to a remote device for further diagnostics. Yoshida discloses "[i]nformation regarding abnormalities detected in the refrigeration machines or supply voltage is stored in a memory. The stored information may then be downloaded from the memory by a service technician" (Abstract, lines 3-7). Yoshida discloses "information relating to harmful conditions which may be downloaded to facilitate troubleshooting by a service technician" (column 2, lines 47-49). Yoshida further discloses a control board for storing diagnostic information necessary for supplying to service technicians to troubleshoot and repair (column 1,

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lines 32-40). The information may be received or supply remotely by the control board (column 1, lines 45-48). Accordingly, diagnostics of the appliance of Ishio can be improved remotely by a service technician performing additional troubleshooting.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

**(12) Conclusion**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Michael P. Nghiem/

Primary Examiner, GAU 2863

December 8, 2009

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